IV.—*On the Striped Squirrels hitherto referred to the Genus* Paraxerus. By Oldfield Thomas.

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The genus *Paraxerus*, as restricted in my paper on the genera of African Sciuridæ *, contains two superficially distinct sets of species—those of uniform colour, or, at most, with an indistinct whitish line down each side of the back, and those with four † conspicuous black bands down the dorsal area with white or yellowish lines between them.

In connection with an examination of some striped squirrels brought by Major Christy from the Bahr-el-Ghazal, I have again studied the skulls of the members of these two groups, and find that there are certain cranial and dental characters by which they can in all cases be distinguished from each other. It would, therefore, appear convenient that groups so conspicuously different externally should be separated generically. The unstriped species will therefore bear the name of *Paraxerus*, with *P. cepapi* as genotype, while those that are striped may form the following new genus :—

Tamiscus, gen. nov.

Dorsal surface conspicuously black-striped.

Skull on the whole as in *Paraxerus*, with similar short muzzle. Anteorbital foramen forming a high narrow slit, that of *Paraxerus* more subtriangular, broader at base.

Teeth. Incisors generally thrown more forwards, those of *Paraxerus* forming an angle with the tooth-row of about 80° (75° to 85°), while those of *Tamiscus* are usually about 90° more or less, attaining 100° in the type of *T. vulcanorum*. The terminal wearing-edge notched, very much as in *Mus*, those of *Paraxerus* being quite normal, as in *Rattus*.

Molars less hypsodont, the crowns more abruptly marked off from the roots. Looking at these teeth from the inner side, the large internal root is narrow, well-spaced from its neighbours on each side, and abruptly broadens out above at the crown. In *Paraxerus*, on the other hand, this root is proportionally larger below, so as more nearly to approach its neighbours, and quite gradually broadens upwards to the crown. Owing to the greater size of the roots in *Paraxerus*, their tips are more generally visible on the upper side of the maxillary than in *Tamiscus*.

Genotype. *Tamiscus emini* (*Sciurus emini*, Stuhlm.).

* Ann. & Mag. Nat. Hist. (8) iii. p. 467 (1909).

† Two only in *alexandri*.

The forms referable to this genus appear to be as follows :—

1. *Tamiscus böhmi*, Reich.

Sciurus boehmi, Reich. Zool. Anz. ix. p. 315 (1886).

Dark lines on back not deep black, but lightened by intermixed greyish or buffy hairs. Edges of ears lighter than general colour of head.

Marungu (*Böhm*), Mweru (*Sir A. Sharpe*).

2. *Tamiscus emini*, Stuhlm.

Sciurus emini, Stuhlm. Mit Emin Pascha, p. 320 (1894).

Dark lines of back strongly contrasted glossy black. Edges of ears (proectote and antitragus) not lighter than rest of head ; a small whitish patch behind them.

Incisors not specially thrown forwards; comparatively thick, about 1·6 mm. in antero-posterior diameter at their exit from the base in adult specimens.

2 *a*. *Tamiscus emini emini*.

Sciurus emini ugandæ, Neum. SB. Ges. Nat. Berl. 1902, p. 180.

General colour strong olivaceous. Dark stripes variable in breadth, the outer ones well marked, well over 2 inches in length.

Semliki River (*Stuhlmann, Carruthers*) (type-locality) ; Congo area westwards to the Ubanghi (*Boyd Alexander*), Welle and Ituri Rivers (*Emin, Boyd Alexander, Christy, and others*), Ruwenzori and Fort Portal (*Woosnam*), Unyoro (*Ansorge*), Businde, Uganda (*Blaine*), Entebbe (*Jackson*), Kampala (*Neumann*).

I fail to find any distinction between the series from the Congo area and those from Uganda. The breadth of the dorsal stripes, used by Neumann to characterize his subspecies *ugandæ*, proves to be absolutely variable in every locality, as also do the sizes of the teeth and the bowing of the skull, in which respects differences are observable between different specimens.

2 *b*. *Tamiscus emini gazellæ*, subsp. n.

General colour of true *emini*, but body-colour much paler and greyer. Flanks near "dull citrine" of Ridgway, head and shoulders rather greyer. Proectote of ears coloured quite like the crown, but the edge of the antitragus may be a little lighter. Dark dorsal lines reduced in extent, the outer narrower and shorter, little more than an inch in length.

Under surface greyish, with but little olive infusion. Tail slender, its edges ochraceous yellow.

Hind foot of type 30 mm.

Skull: greatest length 35·5; upper tooth-series exclusive of p^3 5·7.

Hab. Meridi, Bahr-el-Ghazal.

Type. Adult male. B.M. no. 17. 10. 4. 4. Original number 5. Collected January 1916 and presented by Major Cuthbert Christy. Four specimens.

A paler northern form of *T. emini*. The genus had not been previously recorded from the Nile drainage-area.

3. *Tamiscus vulcanorum*, sp. n.

Size rather smaller than in *T. emini*. General colour rather brighter and more yellowish olivaceous, with strongly contrasted stripes. Edges of ears (proectote and antitragus) lighter than general colour of head. No white spot on sides of neck behind ears.

Incisors slenderer than in *T. emini*, their antero-posterior diameter about 1·4 mm.; generally more proodont * than in *emini*. Molars small.

The members of *Tamiscus* from Ruwenzori southwards, as represented by specimens from three different places, all differ from *T. emini* by their light-edged ears and certain other characters which indicate differences from that animal. But while the specimens from each locality are closely similar *inter se*, it is difficult to name any character except that of the ears which will distinguish the whole of them from *emini*. Further material from their somewhat inaccessible habitats will be needed before their true relationships can be worked out; but I would provisionally consider them as one species with three subspecies, as follows:—

3 *a*. *Tamiscus vulcanorum vulcanorum*.

Fur long, soft, and rich; axillary patches not naked, practically hidden by thin fur. General colour of head and flanks near "dull citrine." Black stripes glossy black, the inner pair broad, broader than the yellowish median line between them; the outer pair narrow, little developed, shorter both in front and behind than the white stripes internal to them. Under surface washed with yellowish green ("pyrite yellow").

* The words proodont, orthodont, and opisthodont (on the analogy of prognathous &c.) might be suggested to express the set of rodent incisors, thrown forward, upright, or turned in backwards respectively.

Incisors slender, proodont (93° to 100°). Molars very small.

Dimensions of type (measured in flesh) :—

Head and body 135 mm.; tail 116; hind foot 35; ear 14.

Skull: greatest length 36; condylo-incisive length 32·8; upper tooth-series exclusive of p^3 4·9.

Hab. (of type). Buhamba, near Lake Kivu, in Belgian Congo. Alt. 6500′. Other specimens from Burunga, Mt. Mikeno.

Type. Adult male. B.M. no. 11. 12. 3. 64. Original number 2194. Collected 4th June, 1911, by Robin Kemp. Four specimens.

3 *b*. *Tamiscus vulcanorum lunaris*, subsp. n.

Fur less long and soft than in *vulcanorum*. General colour of head and sides dark greyish olive, duller and more smoky than in other forms. Dorsal dark stripes not glossy black, but mingled with greyish, the inner pair narrower than the comparatively broad yellowish median band between them; outer dark lines little conspicuous. Under surface washed with yellowish olive.

Incisors proodont, slender. Molars small.

Dimensions of type (measured in the flesh) :—

Head and body 125 mm.; tail 154; hind foot 33; ear 16.

Skull: greatest length 36·5; condylo-incisive length 32·5; upper tooth-series exclusive of p^3 5·3.

Hab. Ruwenzori East (Mubuku Valley). Alt. 6500′.

Type. Adult male. B.M. no. 6. 7. 1. 54. Original number 264. Collected 7th February, 1906, by Douglas Carruthers. Presented by the Ruwenzori Exploration Committee. Two specimens.

This animal was obtained halfway up Mount Ruwenzori, side by side with specimens referable to *T. emini*. It will probably prove to be a mountain-form occurring upwards from that altitude, at which it just meets the common species of the lower levels.

3 *c*. *Tamiscus vulcanorum tanganyikæ*, subsp. n.

Fur not so long as in true *vulcanorum*; axillary patches large, quite naked. General colour as in *vulcanorum*, or even slightly lighter. Dark dorsal stripes glossy black, the inner ones broader than the very narrow median yellowish line; outer ones narrow, but extending the full length of the white lines internal to them. Edges of ears not so conspicuously

lighter than the head as in true *vulcanorum*, but still perceptibly so. Yellow spot on sides of nose particularly well marked. Under surface yellowish grey, more as in some of the forms of *emini*.

Incisors thicker than in other specimens of *vulcanorum*, 1·6 mm., therefore about as in *emini*. Molars comparatively large.

Dimensions of type (measured in flesh):—

Head and body 125 mm.; tail 151; hind foot 30·5; ear 14.

Skull: greatest length 35; condylo-incisive length 31·5; upper tooth-series exclusive of p^3 6.

Hab. 10 miles west of Baraka, Burton Gulf, Lake Tanganyika, in the Tanganyika drainage-area. Alt. 4000′.

Type. Adult male. B.M. no. 7. 6. 14. 33. Original number 328. Collected 3rd January, 1907, by Douglas Carruthers. One specimen only.

This animal, while obviously distinct enough to deserve a subspecific name, is of somewhat doubtful relationship, and more specimens will be needed before the question can be settled. While its comparatively thick incisors and large molars are more as in *T. emini*, its general colour and light-edged ears approach those of *T. vulcanorum*, to which, mainly on geographical grounds, I provisionally refer it. But I should not be surprised if it turns out to be instead a southern subspecies of *T. emini*.

4. *Tamiscus antoniæ*, Thos. & Wrought.

Ann. & Mag. Nat. Hist. (7) xix. p. 377 (1907).

Size much smaller than in the previous species. Colour yellowish grey, with four well-defined black stripes. Ears not lighter than head; no white patches behind them.

Greatest length of skull 31·5 mm.

Hab. Upper Congo. Type from Ponthierville, near Stanley Falls.

5. *Tamiscus alexandri*, Thos. & Wrought.

Ann. & Mag. Nat. Hist. (7) xix. p. 376 (1907).

Size smallest of the genus. Colour yellowish. Stripes much reduced, the dark inner pair narrow and mixed with yellowish, and the outer pair almost imperceptible. Ears conspicuously white both on edges and backs.

Greatest length of skull 30 mm.

Hab. Welle and Ituri Rivers, eastwards into Uganda.

Semliki (*Neave*). Type (a slightly immature specimen) from the Upper Welle.

A young example of this species shows the outer dark lines more plainly than the adults.

V.—*Two new Tuco-tucos from Argentina.*

By Oldfield Thomas.

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Ctenomys latro, sp. n.

Near *C. tucumanus*.

Size about as in *tucumanus*. General colour paler than the peculiar dark fawn of *tucumanus*, more as in *dorsalis*, buffy fawn on sides of head, on back, and on flanks, but the middle area of the face and crown dark brown. Under surface broadly washed with pale buffy ("light buff"), the throat whiter, and a patch on the chest darker, near "avellaneous," very like the belly-colour of *C. tucumanus*; the colours of upper and under surfaces rather sharply distinguished. Behind each ear a light buffy patch runs downwards and backwards on the side of the neck. Tail dark brown on whole breadth of upper surface, pale buffy on sides and below.

Skull of about the same general shape as in *C. tucumanus*, similarly low and flattened, though the brain-case is narrower. Muzzle unusually broadened, owing to a peculiar thickening of the bone outside the anterior half of the buried part of the incisors. Nasals broad, abruptly and squarely truncated behind, where they are considerably surpassed by the ends of the premaxillary processes, their sides forming straight converging lines instead of the curves found in *tucumanus*. Zygomata as widely expanded as in *tucumanus*, but distinctly shorter antero-posteriorly; a groove present along the upper outer edge of the malar, not found in any of our five skulls of *tucumanus*. Temporal ridges uniting to form a low median sagittal crest, the ridges being quite separated in older specimens of *tucumanus*. Supraoccipital smooth, without the median ridge present in adult *tucumanus*. Bullæ slightly smaller than in *tucumanus*, but still smooth and well inflated, not contracted as in *Ct. pontifex*.

Incisors of the normal set and usual orange-colour. Molars rather smaller and more delicate than in *tucumanus*, p^4 exceeding the molars in diagonal diameter rather less than is